

Application Number 10/072,428
Responsive to Office Action mailed September 29, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A method comprising:

receiving configuration input having a first text block defining a data channel and one or more additional text blocks not contained within the first text block that define one or more data sub-channels within a network link, wherein the first text block include references that hierarchically relate the data channel and the data sub-channels, wherein the references are labels that uniquely identify the one or more other text blocks that are external to the first text block; and

configuring a network device according to the configuration input.

Claim 2 (Cancelled).

Claim 3 (Currently Amended): The method of claim 1~~1~~²[[2]], wherein configuring the network devices comprises:

resolving the references to the text blocks within the configuration input; and
constructing a hierarchical data structure to store the configuration input based on the resolution of the references.

Claim 4 (Currently Amended): The method of claim 1~~1~~²[[2]], wherein the other text blocks include a second text block, wherein the first text block includes configuration data for the data channel and a reference to a first data sub-channel, and wherein the second text block includes configuration data for the first data sub-channel.

Claim 5 (Original): The method of claim 1, further comprising displaying a representation of the configuration input to a user.

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Claim 6 (Previously Presented): The method of claim 5, wherein displaying a representation comprises justifying the first text block and the additional text blocks at or near a common margin within a display.

Claim 7 (Original): The method of claim 1, wherein the references comprise user-defined names for the data channel and data sub-channels.

Claim 8 (Original): The method of claim 1, wherein configuring the network device comprises configuring an interface of the network device to channelize input and output data according to the configuration input.

Claim 9 (Original): The method of claim 1, further comprising routing packets based on the configuration information.

Claim 10 (Original): The method of claim 1, wherein receiving configuration input comprises receiving configuration input from a user via a local interface.

Claim 11 (Original): The method of claim 1, wherein receiving configuration input comprises receiving configuration input from a remote user via a network connection.

Claim 12 (Original): The method of claim 1, wherein the configuration input includes labels for the text of the data sub-channels, and each label comprises the respective reference concatenated with one or more channel identifiers according to the hierarchical relationships of the data channel and the data sub-channels.

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Claim 13 (Currently Amended): A computer-readable medium having configuration input therein comprising a first text block defining a data channel and one or more additional text blocks not nested within the first text block that define at least one data sub-channel within a network link, wherein the first text block includes references to the additional text blocks to uniquely identify the additional text blocks external to the first text block and hierarchically relate the data channel and the sub-channel.

Claim 14 (Original): The computer-readable medium of claim 13, wherein the references comprise user-defined names for the data channel and the data sub-channel.

Claim 15 (Previously Presented): The computer-readable medium of claim 13, wherein the one or more additional text blocks includes a second text block, wherein the first text block includes configuration data for the data channel and a reference to a first data sub-channel, and wherein the second text block includes configuration data for the first data sub-channel.

Claim 16 (Original): The computer-readable medium of claim 13, wherein the configuration input includes labels for the text of the data sub-channel, wherein each label comprises the respective reference concatenated with one or more channel identifiers according to the hierarchical relationships of the data channel and the data sub-channel.

Claim 17 (Currently Amended): A network device comprising:
a computer-readable medium to store configuration input having a first text block defining a data channel and a set of additional non-nested text blocks external to the first text block defining at least one data sub-channel, wherein the text blocks include references that uniquely identify the set of non-nested text blocks that are external to the first text block and relate relating the data channel and the sub-channel; and
a control unit to communicate data over a channelized network link according to the configuration input.

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Claim 18 (Original): The network device of claim 17, further comprising an interface card for coupling to the network link, wherein the control unit configures the interface card according to the configuration input.

Claim 19 (Original): The network device of claim 17, further comprising a configuration module to receive the configuration input from a user.

Claim 20 (Original): The network device of claim 17, wherein the configuration module receives the configuration via a local interface.

Claim 21 (Original): The network device of claim 17, wherein the configuration module receives the configuration information via a network connection.

Claim 22 (Original): The network device of claim 17, wherein the references comprise user-defined names for the data channel and data sub-channel.

Claim 23 (Original): The network device of claim 17, wherein the configuration input includes a first channel definition block having configuration data for the data channel and a reference to a first sub-channel, and a second channel definition block having configuration data for the first data sub-channel.

Claim 24 (Original): The network device of claim 17, wherein the references hierarchically relate the data channel and the sub-channels.

Claim 25 (Original): The network device of claim 17, wherein the control unit resolves the references to construct a hierarchical data structure representing channelization of an interface of the network device.

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Claim 26 (Original): The network device of claim 17, wherein the control unit comprises:
a routing engine to store routing information representing a topology of a network; and
a packet-forwarding engine to store packet-forwarding information in accordance with the routing information.

Claim 27 (Currently Amended): A computer-readable medium having instructions therein for causing a processor within a network device to:
present a text-based interface to receive configuration input having a first text block defining a data channel and a set of additional non-nested text blocks external to the first text block defining one or more data sub-channels within a network link, wherein the text blocks include references that uniquely identify the set of non-nested text blocks that are external to the first text block and hierarchically relate the data channel and the data sub-channels; and
configure the network device according to the configuration input.

Claim 28 (Previously Presented): The computer-readable medium of claim 27, wherein each of the references identifies a respective one of the additional, non-nested text blocks within the configuration input.

Claim 29 (Previously Presented): The computer-readable medium of claim 27, further comprising instructions that cause the processor to:
resolve each of the references to a respective one of the text blocks within the configuration input; and
construct a hierarchical data structure to store the configuration input based on the resolution of the references.

Claim 30 (Previously Presented): The computer-readable medium of claim 27, wherein the set of additional non-nested text blocks include a second text block, wherein the first text block includes configuration data for the data channel and a reference to a first data sub-channel, and wherein the second text block includes configuration data for the first data sub-channel.

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Claim 31 (Original): The computer-readable medium of claim 27, wherein the instructions cause the processor to display the configuration input to the user.

Claim 32 (Previously Presented): The computer-readable medium of claim 31, wherein the instructions cause the processor to justify the first text block and the additional text blocks at or near a common margin.

Claim 33 (Original): The computer-readable medium of claim 27, wherein the references comprise user-defined names for the data channel and data sub-channel.

Claim 34 (Original): The computer-readable medium of claim 27, wherein the instructions cause the processor to configure an interface of a network device to channelize input and output packets according the configuration input.

Claim 35 (Original): The computer-readable medium of claim 27, wherein the instructions cause the processor to route data based on the configuration information.

Claim 36 (Original): The computer-readable medium of claim 27, wherein the instructions cause the processor to receive configuration input from a user via a local interface.

Claim 37 (Previously Presented): The computer-readable medium of claim 27, wherein the instructions cause the processor to receive configuration input from a remote user via a network connection.